

## ***Introduction***

ML-01-0290

## **Music Library organization**

The Music Library is an archive of instrumental sounds created for use with both small and large Synclavier systems. The collection includes both sampled sounds and Synclavier timbres.

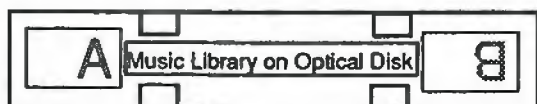
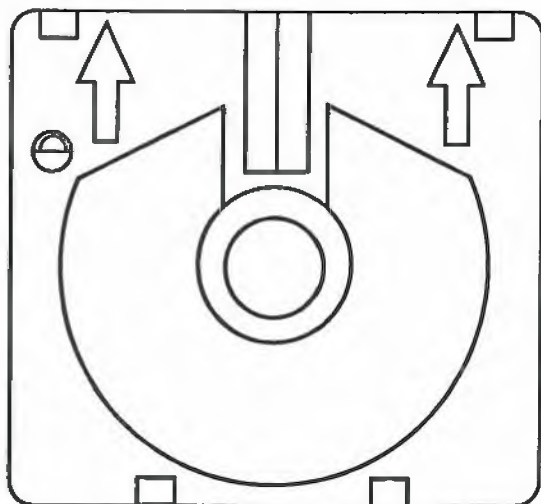
## **Sound files and timbres**

Each sampled sound is stored as a **sound file** on the optical disk labeled "Music Library on Optical Disk." Groups of related sound files are organized in **categories**.

Synclavier timbres were created by patching a number of sound files across the keyboard, and layering up to four keyboard patches into a single **keyboard patch timbre**. A keyboard patch, for example, may be a set of different percussion sounds or Foley effects, or a series of sampled sounds from a single instrument. Groups of related timbres are stored in **timbre files** on the two floppy disks labeled "New England Digital Timbre Directories."

Each sound file may be associated with several timbres. Each timbre may use some or all of the sound files within a category, and may use sound files from one or more categories.

Timbres that use all the sound files in a category may have the best overall sound and widest range. These timbres, however, require the most polyphonic sampling memory (poly memory). Timbres that use fewer sound files require less memory, as do timbres that use only part of the instrument's range.



*Music Library  
optical disk*

*underneath view*

*side view*



*Music Library  
floppy disks*

## **Music Library organization (con't)**

### **Sound file names**

Each sound file in the Music Library has a name, a caption and one or more category assignments.

A **sound file name** consists of eight characters that provide coded information about the sampled sound, as shown in the following table.

<b>Character Positions</b>	<b>Coded Information</b>
1-2-3	instrument code
4-5-6	pitch—always designated as either # (sharp) or N (natural)
7-8	sound file category number

For example, the sound file named ABSFN241 can be decoded as follows.

<b>Characters</b>	<b>Coded Information</b>
ABS	instrument code for acoustic bass
FN2	sampled pitch is F natural below middle C
41	acoustic bass category number 41

## *Sound file names (con't)*

For some percussion instruments, the pitch designator is used to indicate other properties of the sound. Each character has its own meaning. A hyphen (-) indicates that the character is not applicable.

<b>Character Positions</b>	<b>Coded Information</b>
4	pitch
5	style
6	striker

For example, the sound file named CBLHCM03 can be decoded as follows.

<b>Characters</b>	<b>Coded Information</b>
CBL	instrument code for cowbells
H	high pitch
C	closed style
M	metal striker
03	cowbell category number 03

Each instrument has a unique three-letter code. See "Instruments in the Music Library" later in this manual for lists of instrument codes and names.

## **Music Library organization (con't)**

### ***Captions and categories***

The **caption** includes the complete instrument name and descriptive information about the sound file. For example, the caption for the sound file named ABSFN241 is "Pizzicato Acoustic Bass - soft."

A **category** contains several related sound files. The sound files are categorized by instrument code and also by instrument type. For example, the sound file named ABSFN241 appears in the categories named :ABS41 and BASS:ACOUSTIC:ABS41.

A sound file may be cross-referenced to up to eight categories. Although it may appear in more than one category, the sound file actually is stored only once on the optical disk. See "Sound files in the Music Library" later in this manual for lists of categories and sound files.

**Note:** Most sound files in the Music Library are mono sounds sampled at 50 kHz. Exceptions are listed in parentheses after the captions.

## *Timbre names*

Timbre names identify the instrument and provide information about the amount of memory required to play the timbre. Other information about the timbre, such as the way the instrument is played, the range of the keyboard used by the timbre or the number of voices required, may be included in the timbre name.

For example, the timbre named ABS40/41 Piz 6.1 is a pizzicato acoustic bass timbre that uses sound files from the category named :ABS40/41 and requires 6.1 megabytes of memory.

## **Music Library organization (con't)**

### **Timbre files**

Up to 64 timbres can be stored in each timbre file. There are eight timbre files in the Music Library, each stored in a separate subcatalog on one of two floppy disks labeled New England Digital Timbre Directories (TL#1 or TL#2).

The subcatalog name indicates the type of instrument used in the timbres, as shown in the following chart.

<b>Subcatalog Name</b>	<b>Type of Instrument</b>	<b>Floppy Disk Number</b>
BAS-DATA	Basses	TL#1
BRS-DATA	Brass	TL#1
DRM-DATA	Drums	TL#2
KBD-DATA	Keyboards	TL#1
PRC1DATA	Percussion	TL#2
PRC2DATA	Percussion	TL#2
STG-DATA	Strings	TL#1
WND-DATA	Woodwinds	TL#1

See "Timbres in the Music Library" later in this manual for a list of timbres stored in each subcatalog.



## *Preparing to use the Music Library*

Each side of the optical disk, called a volume, is treated as if it were a separate disk. All the sound files in the Music Library are contained on the volume named NED-TL01. The other side of the optical disk is empty, so you can add new sound files or modified versions of existing sound files to your Music Library.

Before proceeding, you need to understand how to

- turn on the optical drive
- insert and remove the optical disk
- load the volume
- update the index files

See “Optical disk” in the *Organizing and Storing Sounds* manual for detailed instructions.

## ***Recalling sound files***

You can recall a sound file using either the Optical Disk Display or the Sound File Directory. When a sound file is recalled, it is loaded into poly memory.

## ***Using the Sound File Directory to recall sound files***

1. Insert the Music Library optical disk into the optical drive.
2. Select the Sound File Directory from the Main Menu.

A list of devices and display formats appears at the top of the screen.

3. Select the optical disk by typing or clicking the number preceding it.

The list of sound files contained on the current volume appears at the bottom of the screen.

4. Select a display format from the SORT and SHOW options. You can select one or more SHOW options.

You can sort the sound file list alphabetically by category, filename or both. You can show names only, names with captions or names with lengths and captions. Lengths can be shown in seconds, sectors and/or megabytes. Audition allows you to hear the sound file as it is loaded into poly memory.

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## *Using the Sound File Directory to recall sound files (con't)*

5. Locate the desired sound file by moving the scroll box or pressing the arrow keys until the sound file appears, or by using the Search button. (See "The Search function" later in this section.)

If you drag the scroll box, the sound file names appear in the center of the screen.

6. Click the sound file name to select it.

A message appears at the bottom of the screen while the sound file is loaded into poly memory.

Installing Sound File <sound file name>

If you selected Audition, the sound file plays as it is loaded.

## **Recalling sound files (con't)**

## **Using the Optical Disk Display to recall sound files**

1. Insert the Music Library optical disk into the optical drive.
2. Select the Optical Disk Display from the Main Menu.

Sound files stored on the current volume are listed in the optical disk window at the lower left of the display. Sound files stored on any other selected device are listed in the sound file window at the lower right of the display.

3. Change the Display Format switches, if desired. You can display the sound file list in the optical disk window alphabetically by category, filename or both. You can show names only, names with captions or names with lengths and captions. Lengths can be shown in seconds, sectors and/or megabytes.
4. Set the Function switch to choose whether to simply select the sound file (**None**), to select it and recall it to poly memory (**Recall**) or to select it, recall it to poly memory and listen to it (**Recall & Audition**).

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## *Using the Optical Disk Display to recall sound files (con't)*

5. Locate the desired sound file by moving the scroll box or pressing the arrow keys until the sound file appears, or by using the Search button. (See "The Search function" on the following page.)

If you drag the scroll box, the sound file names appear in the center of the screen.

6. Click the sound file name to highlight it.

The sound file name, caption and any categories to which the sound file is assigned appear in the information panel at the top of the screen.

If you selected Recall, the sound file is loaded into poly memory. If you selected Recall & Audition, the sound file also plays as it is loaded into poly memory.

## ***Recalling sound files (con't)***



*Search button*

## ***The Search function***

Both the Optical Disk Display and the Sound File Directory contain Search buttons. Each Search button, labeled with a question mark, is located just above the scroll bar.

You can use a Search button to automatically locate a sound file on the currently loaded volume.

1. Click the Search button.

A message appears across the middle of the screen.

Enter search ID:            [SEARCH] [CANCEL]

2. Type any portion of the sound file name, caption or other information that you want to locate.

You can type any character string, including letters, numbers, spaces and punctuation marks. The character string can be all or part of a word.

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## *The Search function (con't)*

3. Click [SEARCH].

In a few moments, the screen cursor moves to the first occurrence of the character string you entered. You can select that sound file or continue the search.

4. To continue a search in the Sound File Directory, press / (the slash key next to the Shift key). To continue a search in the Optical Disk Display, click the Search button again and then click [SEARCH].

The cursor moves to the next occurrence of the character string you entered.

**Note:** You can abort a search by clicking the large trackball button.

## **Recalling timbres**

You recall a timbre by selecting it from the Timbre Directory on the terminal screen or by using the buttons on the keyboard control panel.

When you recall a timbre, the timbre definition is loaded into memory as the **current timbre**, and the sound files associated with the timbre are loaded into poly memory.

## **Selecting a subcatalog**

You can recall a timbre only from the current catalog. If the desired timbre is stored in a different subcatalog, use the Subcatalog Directory to change the current catalog.

1. Insert the floppy disk containing the desired subcatalog into the F0 drive.
2. Select the Subcatalog Directory from the Main Menu.

The screen displays a list of all available devices in your system and all subcatalogs contained in the current catalog. The name of the current catalog is shown at the bottom right of the screen.

3. Click F0: if it is not already the current catalog.

The subcatalog names available from the floppy disk appear on the screen.

4. Click the desired subcatalog name.

The selected subcatalog becomes the current catalog.

**Note:** If desired, you can copy the Music Library timbre files from the floppy disks to your Winchester. (See the section "Copying and backing up using Formcopy" in the *Organizing and Storing Sounds* manual.)



## *Using the Timbre Directory to recall a timbre*

To recall a timbre stored in the current catalog, you select the timbre from the Timbre Directory.

1. Select the Timbre Directory from the Main Menu.

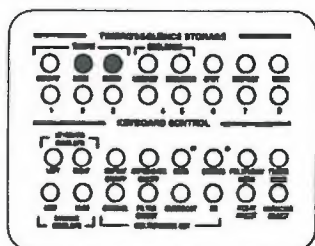
The box at the top of the screen contains instructions for using the Timbre Directory. Eight banks, each with up to eight entries, appear below the instruction box.

Some of the banks list the instruments and abbreviations used in the Timbre Directory. In other banks, each entry is the name of a timbre. Some entries are empty so that you can create and store your own timbres.

2. Click the desired timbre name.

If all the sound files associated with the timbre are in poly memory already, the timbre instantly becomes the current timbre. Otherwise, a series of messages appears in the keyboard display window to indicate that the sound files are being loaded into poly memory. When the timbre name appears in the display window, the timbre is the current timbre. If you have a Synclavier keyboard, the timbre is active on the keyboard.

## Recalling timbres (con't)



*BANK and ENTRY  
panel 4*

## Using the keyboard control panel to recall a timbre

Each timbre in the Timbre Directory can be identified by its bank and entry numbers. You can use the BANK and ENTRY buttons on the keyboard control panel to recall a timbre from the current catalog, whether or not the Timbre Directory is displayed on the screen.

1. Select the desired bank by pressing BANK and then the appropriate numbered button on panel 4.
2. Select the desired entry by pressing ENTRY and then the appropriate numbered button on panel 4.

If all the sound files associated with the timbre are in poly memory already, the timbre instantly becomes the current timbre. Otherwise, a series of messages appears in the keyboard display window to indicate that the sound files are being loaded into poly memory. When the timbre name appears in the display window, the timbre is the current timbre. If you have a Synclavier keyboard, the timbre is active on the keyboard.

## *Sound files in poly memory*

Each sound file loaded into poly memory remains there as long as there is room for it. If you have a 64-voice or 96-voice poly system, the sound files associated with a recalled timbre are loaded into the preferred poly bin assigned to the keyboard. By default, the keyboard is assigned to poly bin 1. You can change this assignment by using the Multichannel Display. (See the section "Recording with a 96-voice poly system" in the *Sequence Editing* manual.)

If the preferred poly bin does not have room for the sound files being loaded, the sound files in that poly bin that are not associated with the current timbre or current sequence are erased from poly memory automatically.

If the memory in the assigned poly bin is insufficient for all the sound files associated with the recalled timbre, the remaining sound files are loaded into the next poly bin. If there is insufficient room in all three poly bins, the following error message appears.

### **Out of Room in Sample Memory**

Once a sound file is loaded into a poly bin, it remains there until it is erased from poly memory. For example, if a timbre is recalled when the preferred poly bin is 2, and its associated sound files are already loaded into bin 1, the sound files remain in bin 1.

Sound files remain in poly memory when you leave the Real-Time Performance system to use the Monitor or other software modules in the system. All sound files are erased from poly memory when you turn off the power to the system.

## ***Collecting sound files in poly memory***

You can use the COLLECT command to erase from poly memory all sound files not associated with the current timbre or sequence. Collecting has no effect on the sound files stored on the optical, Winchester or floppy disk.

1. Select the Sound File Editor from the Main Menu.
2. Select COLLECT from the Store/Recall menu.

A message prompts you to verify the command.

Delete all unused sound files in poly memory [OK confirms]  
=>

3. Type ok.

All sound files not associated with the current sequence or the current timbre are erased. The remaining sound files are collected into a contiguous area of poly memory.

You can also use the Sound File Directory or Optical Disk Display to collect sound files in poly memory.

1. Click the box labeled R near the top of the scroll bar.

The following dialog appears.

Poly RAM Memory:      [SHUFFLE] [COLLECT]  
   [ERASE] [CANCEL]

2. Click [COLLECT].

## *Erasing sound files from poly memory*

You can erase all sound files from poly memory. This has no effect on sound files stored on disk.

1. Select the System Commands menu from the Main Menu.
2. Select "Erase all sound files from poly memory."
3. Type ok and press Return.

A message appears telling you that all sound files have been erased from poly memory.

You can also use the Sound File Directory or Optical Disk Display to erase sound files from poly memory.

1. Click the box labeled R near the top of the scroll bar.

The following dialog appears.

Poly RAM Memory:      [SHUFFLE] [COLLECT]  
   [ERASE] [CANCEL]

2. Click [ERASE].

**Note:** You can use the Sound File Directory to display the amount of memory available in each poly bin.

- Click the box labeled N near the top of the scroll bar.

The following message appears.

Available Memory (Mb): 0.0, 0.0, 0.0 Enter Preferred Bin No: 1  
Free Memory      (Mb): 0.0, 0.0, 0.0      [CANCEL]

## **Modifying sound files and timbres**

You can modify any sound file in the Music Library.

## **Modifying sound files**

Sound file modifications include cutting, pasting, filling, crossfading, looping, normalizing, inverting and reversing. You also can mix two sound files, create a stereo file from two mono files or create a mono file from a stereo file.

You modify a sound file using the Sound File Editor, accessed from the Main Menu.

1. Recall the sound file you want to modify.

A copy of the sound file is loaded into poly memory.

2. Select the Modify menu from the Sound File Editor.

The Modify commands appear at the bottom of the screen.

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## *Modifying sound files (con't)*

3. Select the desired command and, if necessary, enter the appropriate information. (See "Modifying sound files" in the *Sampling and Sound Editing* manual for detailed instructions.)

The sound file in poly memory is modified and given a name in the format NEWF[four-digit number]. The original sound file on disk is unchanged.

4. Save the sound file on the optical disk or the Winchester. (See the section "Storing sound files and timbres" later in this manual.)



## **Modifying sound files and timbres (con't)**

### ***Modifying timbres***

Each timbre can contain up to four layers of sound. Each layer, called a **partial timbre**, can be modified individually by adding vibrato, portamento, stereo or real-time effects. You can also change the volume envelope of each partial timbre within the limits of the sound files used in the keyboard patch. For example, you can lower the volume of any segment of the partial timbre but you cannot raise it.

You modify partial timbres using either the Synclavier keyboard control panel or the Timbre Display. This page summarizes the procedure for modifying a partial timbre. For more detailed instructions, see "Modifying partial timbres" and "Real-time effects" in the *Sampling and Sound Editing* manual.

1. Select the partial timbre to be modified.
2. Select the timbre parameter you want to modify by pressing the appropriate button on the keyboard control panel or by moving the cursor to the desired parameter on the Timbre Display.
3. Set the new value for the parameter by turning the control knob on the keyboard control panel or by typing a new value on the Timbre Display.

All the sound files in the keyboard patch are affected by the new value.

4. Save the timbre. (See the section "Storing sound files and timbres" later in this manual.)



## *Modifying timbres (con't)*

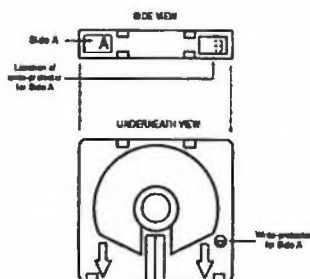
You can modify the whole timbre with its four layers by adding chorus or repeat/arpeggiate effects. As with partial timbres, all the sound files in the keyboard patches of the timbre are affected by the modifications. (See "Modifying and storing whole timbres" in the *Sampling and Sound Editing* manual.)

Individual sound files in each keyboard patch can be modified using the Patch Display. You can change the volume, tuning or keyboard assignment of each sound file in the keyboard patch. You can also loop any sound file in the keyboard patch independently. (See "Keyboard patches" in the *Sampling and Sound Editing* manual.)

## Storing sound files and timbres

You can save modified versions of sound files on either the Music Library optical disk or the Winchester disk.

Timbres must be stored in a timbre file on the Winchester or a floppy disk.



## Preparing to store sound files on the optical disk

The optical disk is a write-once-read-many (WORM) medium. Once stored on disk, a sound file cannot be overwritten. A file can be deleted, renamed or replaced, but the space where it originally was stored is not reusable. Each time you delete, rename or replace a sound file, you decrease by one the total number of files that can be stored on the optical disk and you decrease the number of sectors available for storage.

Before storing a sound file on an optical disk volume, you need to unlock the write-protector for that volume. Follow these instructions to unlock the write-protector for side A.

1. Remove the optical disk cartridge from the drive and hold it so that the letter "A" on the edge of the cartridge is right-side up.
2. Use a coin or screwdriver to rotate the write-protector on the bottom of the cartridge so that the arrow points to WRITE.
3. Reinsert the cartridge into the drive.

**Note:** Before storing on side B for the first time, the volume must be formatted. (See the section "Preparing the optical disk for storage" in the *Organizing and Storing Sounds* manual.)

## *Naming a sound file*

Before storing a sound file in the Music Library, you need to assign a name to the sound file.

1. Select the Sound File Editor from the Main Menu.
2. From the Store/Recall menu, select the RENAME command and enter a valid filename.

A valid filename has up to eight consecutive characters. Spaces and the following characters cannot be used.

? ! : ; , / \ < > + = % & \* | @

Each file must have a unique filename. You might find it helpful to use the filename and category structures that already exist in the Music Library.

## **Storing sound files and timbres (con't)**

### ***Storing sound files on the optical disk***

You can change the caption, assign new categories and store the sound file on the Music Library optical disk. (See the section "Storing sound files on optical disk" in the *Organizing and Storing Sounds* manual for detailed instructions.)

**WARNING:** If the name of the sound file you are storing is the same as the name of a sound file already stored on the optical disk, you will lose the original stored sound file.

1. Select the Optical Disk Display from the Main Menu.
2. If desired, enter a new caption.
3. If desired, enter new categories.
4. Review all the information in the the Information panel carefully.

Make sure the caption and all category assignments are correct and complete before you store the sound file. Although you can change filenames, captions and categories after the file is stored, the space used by the original file is not recovered and the number of files you can store on the disk is decreased.

5. Click the button labeled STORE.

The sound file is stored on the optical disk, and the index file on the Winchester is updated.

## *Storing sound files on the Winchester*

You can use the Sound File Editor to store sound files in the current catalog of the Winchester.

**WARNING:** If you assign to the current sound file the name of a sound file already stored in the current catalog, the stored sound file will be replaced by the current one.

1. Select the Sound File Editor from the Main Menu.
2. Select the SAVE command from the Store/Recall menu.
3. Type the name of the sound file you want to store, and press Return.

The current sound file is stored with the specified name in the current catalog.

## **Storing sound files and timbres (con't)**

### ***Storing timbres***

Timbres are stored in a timbre file on the Winchester or a floppy disk. The timbre definition includes the following information.

- the timbre names and the name of each sound file contained in the timbre
- all partial timbre modifications, including vibrato, portamento, tremolo (amplitude modulation), tuning, volume, chorus, final decay, keyboard envelope and real-time effects
- all modifications of the whole timbre such as chorus, arpeggiate, repeat and polyphony control

The sound files themselves are not stored in the timbre file, only their names and locations on disk.

You can store timbres in the current catalog if it contains a timbre file. If the current catalog contains no timbre file, use the Subcatalog Directory to enter a subcatalog that has a timbre file, or use the Monitor to create a new timbre file in the current catalog. (See the section "Managing sequence and timbre files" in the *Organizing and Storing Sounds* manual.)

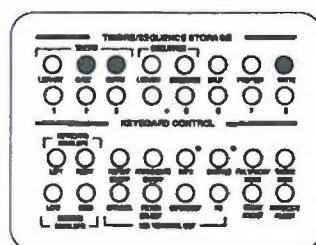
## Storing timbres (con't)

You store timbres in the current catalog using the TIMBRE/SEQUENCE STORAGE buttons on the keyboard control panel.

**WARNING:** If you assign to the current timbre the bank and entry numbers of a timbre already stored in the current catalog, the stored timbre will be replaced by the current one.

1. Select Name Keyboard Timbre from the Main Menu, and type a name for the current timbre.
2. Press BANK and the appropriate numbered button on panel 4.
3. Press and hold WRITE while you press ENTRY and the appropriate numbered button on panel 4.

The current timbre is stored with the specified name in the timbre file in the current catalog.



*BANK, ENTRY, WRITE  
panel 4*



## ***Printing a list of sound files***

If the Music Library is the currently loaded volume, you can produce a list of all its sound files and categories using the Sound File Directory.

You can use the Optical Disk Listing Utility to produce a similar list, whether or not the Music Library volume is loaded. (See the section "Optical disk utilities" in the *Organizing and Storing Sounds* manual.)

## ***Printing the Sound File Directory***

You can print a hard copy of the entire sound file list contained on the currently loaded volume using the Sound File Directory. The hard copy contains only the columns you select to display in the sound file window on the terminal screen.

1. Be sure that your printer is connected and the power is on. The printer must be in "ready" or "on line" mode.
2. Insert the desired optical disk into the drive, and select the Sound File Directory from the Main Menu.

A list of devices and display formats appears at the top of the screen.

3. Select the optical disk by clicking or typing the number preceding it.

The list of sound files contained on the current volume appears at the bottom of the screen.

4. Select a display format from the SORT and SHOW options. You can select one or more SHOW options.

You can sort the sound file list alphabetically by category, filename or both. You can show names only, names with captions or names with lengths and captions. Lengths can be shown in seconds, sectors and/or megabytes.

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## *Printing the Sound File Directory (con't)*

5. Click the button labeled **P** near the top right of the sound file window, or type the letter **p**.

This message appears in the dialog box.

Click PRINT to initiate printout      [PRINT] [CANCEL]  
Title:

6. If you want to specify a title for the printout, click the field labeled Title and type the desired text.
7. Be sure your printer is ready, and click [PRINT].

The printer produces a list of all the sound files on the current volume, using the display format you selected. If you specified a title, it appears on the cover page.

**Note:** You can halt the printing procedure at any time by clicking the large trackball button.